

# MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS



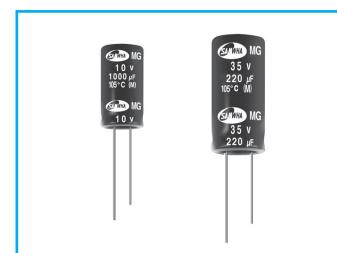
Upgrade

# MG

Long Life  
Series

- Long Life
- For LED Lighting
- High reliability withstanding 20000 hours load life at 105°C
- Complied to the RoHS directive

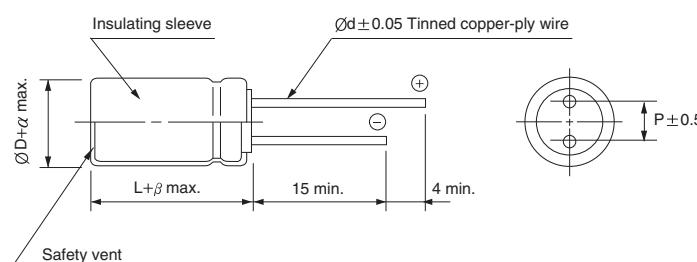
MH → MG  
Long life



Item	Characteristics				
Operating temperature range	-40 ~ +105°C				
Leakage current max.	$I = 0.03CV$ or $4\mu A$ whichever is greater (after 1 minutes)				
Capacitance tolerance	$\pm 20\%$ at 120Hz, 20°C				
Dissipation factor max. (at 120Hz, 20°C)	WV	10	16	25	35
	$\tan\delta$	0.20	0.16	0.14	0.12
Low temperature characteristics (Impedance ratio at 120Hz)	WV	10	16	25	35
	Z-25°C/Z+20°C	3	2	2	2
	Z-40°C/Z+20°C	3	3	3	3
Load life (after application of the rated voltage for 20000 hours at 105°C)	Leakage current	Less than specified value			
	Capacitance change	Within $\pm 30\%$ of initial value			
	$\tan\delta$	Less than 300% of specified value			
Shelf life (at 105°C)	After 1000 hours no load test, leakage current, capacitance and $\tan\delta$ are same as load life value. The measurement shall be performed at 20°C by the KS C IEC 60384 - 4				

## ● DRAWING

Unit : mm



ØD	10	12.5	16	18
P	5.0	5.0	7.5	7.5
Ød	0.6	0.6	0.8	0.8
α	0.5			
β	2.0			

## ● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

$\mu F \backslash WV$	10	16	25	35
100			10 × 12.5	420
220		10 × 12.5	504	10 × 20
330	10 × 12.5	504	10 × 16	1008
470	10 × 12.5	672	10 × 20	1344
680	10 × 16	806	12.5 × 20	12.5 × 20
1000	10 × 20	1008	12.5 × 25	1680
2200	12.5 × 25	1680	16 × 25	1879
3300	16 × 25	2016	16 × 31.5	2184
4700	16 × 31.5	2184		

↑ Ripple current (mA rms) at 105°C, 100kHz  
Case size ØD×L (mm)

## ● FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

Frequency	120Hz	1kHz	10kHz	50kHz	100kHz
Coefficient	0.75	0.8	0.9	0.95	1.00